

Burn Injury as a Result of Interpersonal Violence in the Northern Territory Top End

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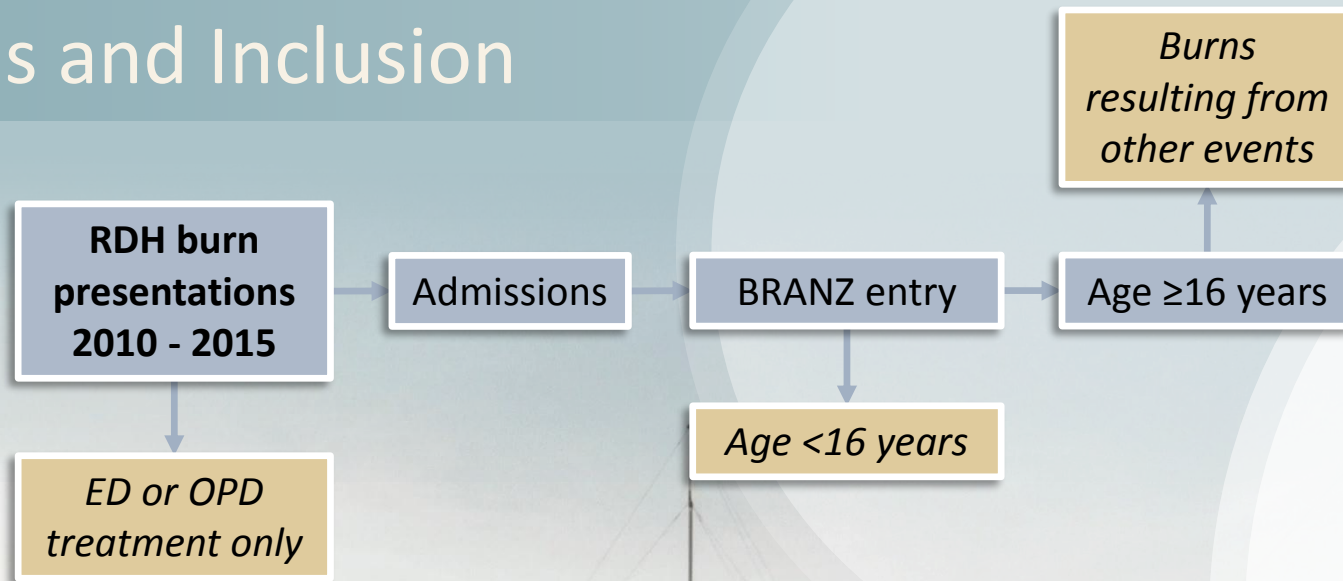
The background image shows a wide, shallow body of water, possibly a flooded field or a slow-moving river. The water is dark blue-grey with some ripples. In the distance, there is a line of green trees under a cloudy sky. On the left side, there are some brown, weathered tree trunks. A large, semi-transparent white circle is overlaid on the left half of the image, containing text.

“Domestic violence is a **contagion**. In the Aboriginal communities of the Northern Territory it is literally **out of control**. As a Local Court Judge I witness it most days. As the Coroner I see the terrible lives these women endure and their horrifying deaths.”

Judge Greg Cavanagh 2016

Background

Aims and Inclusion



Burns resulting from Interpersonal Violence

- Quantify IPV burn incidence and impact on local healthcare system
- Assess for areas of improvement in care delivery
- Describe IPV burn:
 - Victim demographics
 - Injury circumstances
 - Wound characteristics

EMERGENCY

Methods

- BRANZ database:
 - Cohort identification
 - Gender
 - Burn mechanism and distribution
- RDH database:
 - Ethnicity
- RDH clinical records:
 - IPV burn admission descriptions

The People

Sex	IPV		≠ IPV	
	<i>n</i>	%	<i>n</i>	%
Female	28	53%	171	26%
Male	25	47%	488	74%

Ethnicity	IPV		≠ IPV	
	<i>n</i>	%	<i>n</i>	%
Indigenous	44	83%	141	21%
Non-Indigenous	9	17%	518	79%

- 712 admissions
 - 53 = IPV (7.4%)
 - 659 = non-IPV
- 53% of IPV burns occur in females
 - IPV burn victims 2.3x more likely to be female
- 83% of IPV burns occur in Indigenous persons
 - IPV burn victims 17x more likely to be Indigenous

The Places

Region	<i>n</i>	%
Outer regional NT	33	62%
Remote NT	4	7.5%
Very remote NT	15	28%
Outside NT	1	1.9%

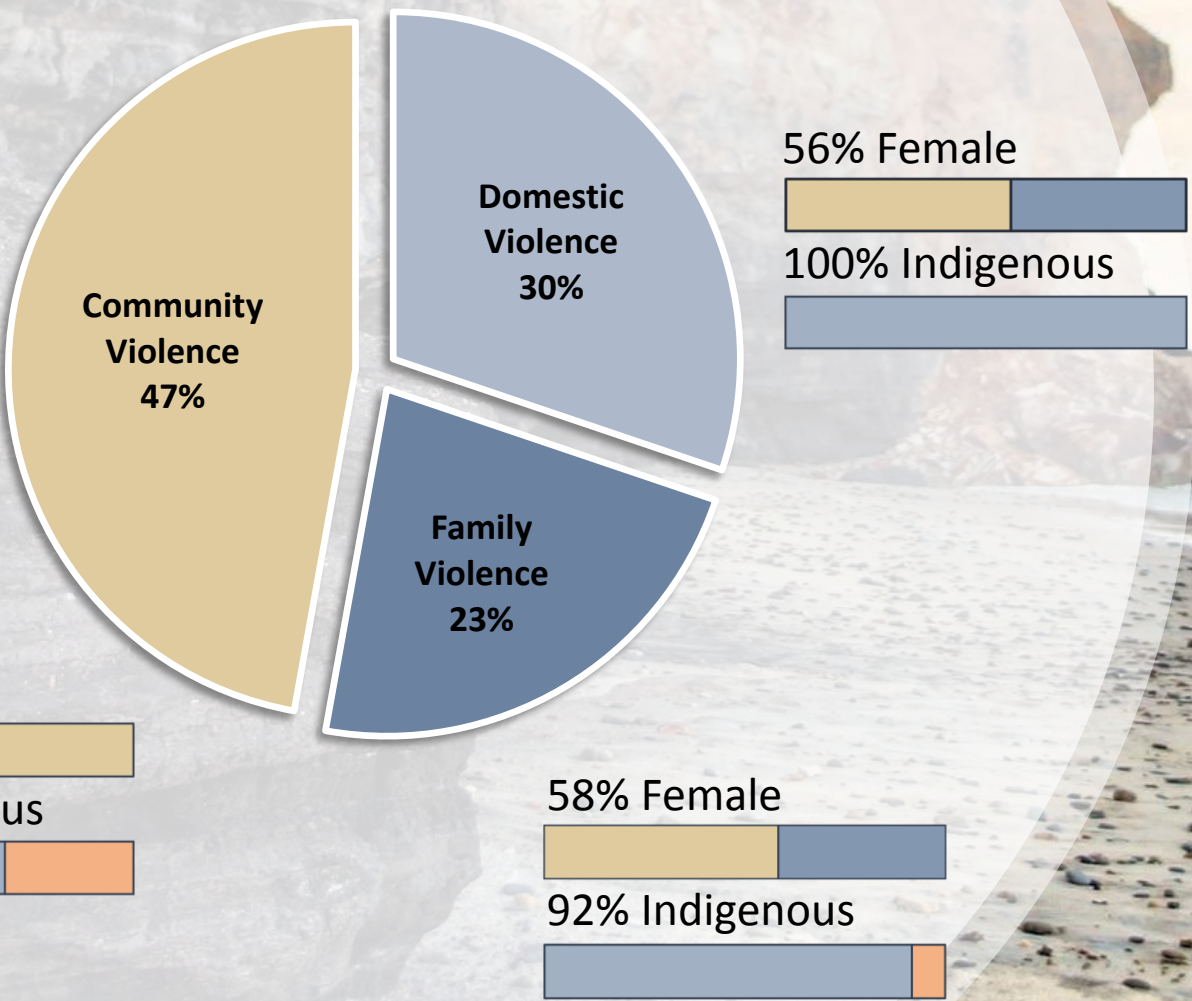
Darwin

Katherine

Nhulunbuy

The Events

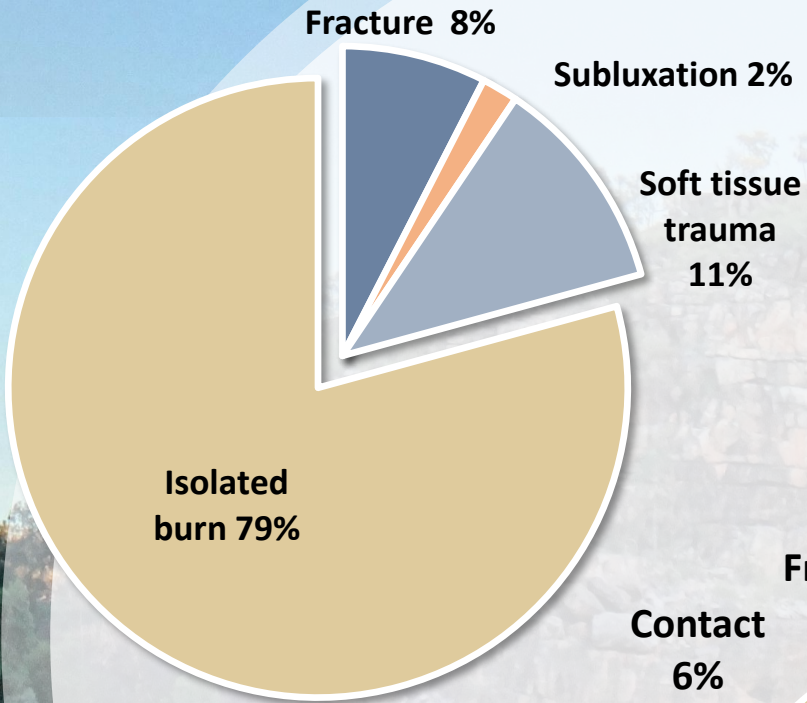
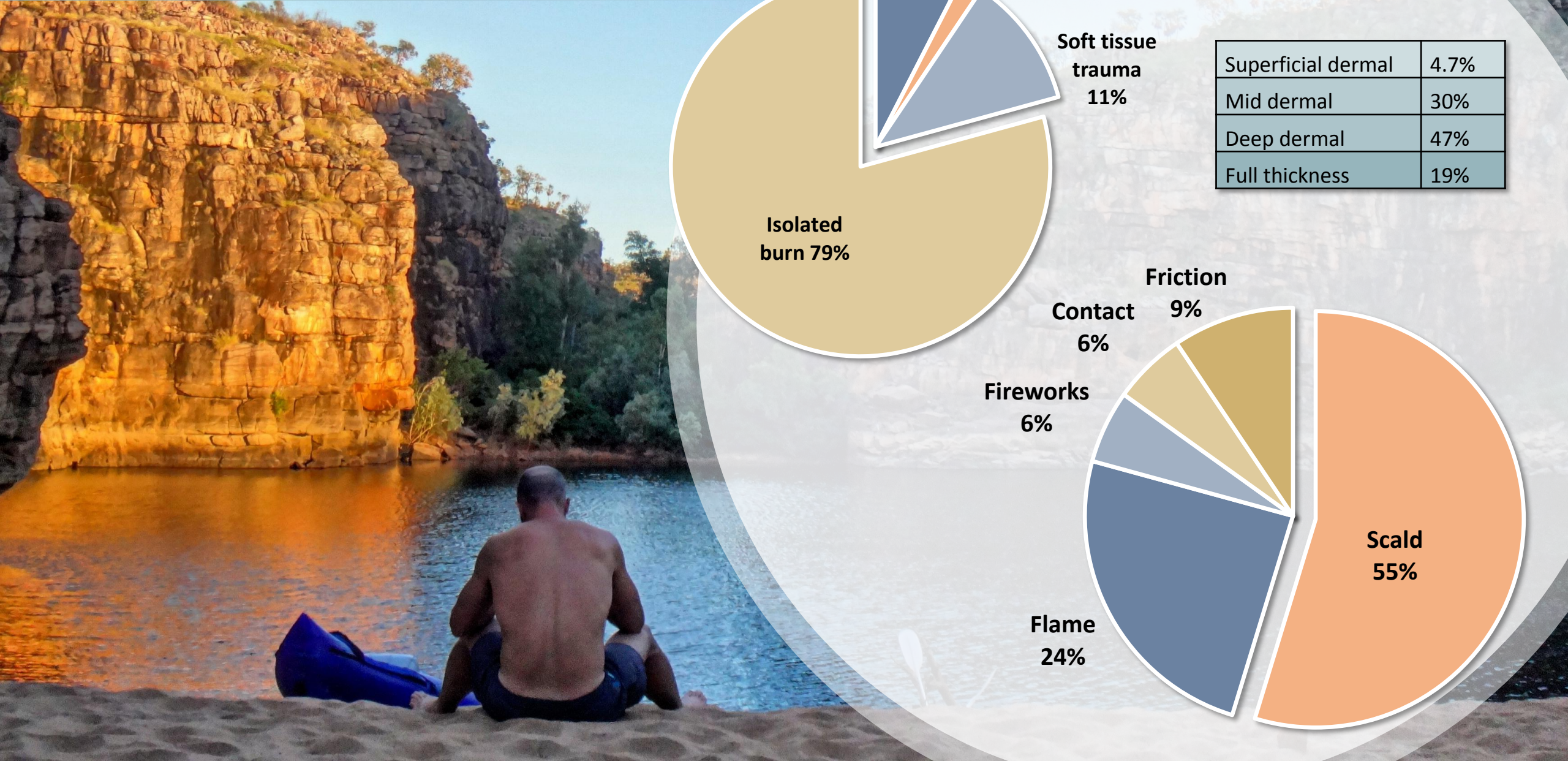
57% victim alcohol or drug use at time of injury



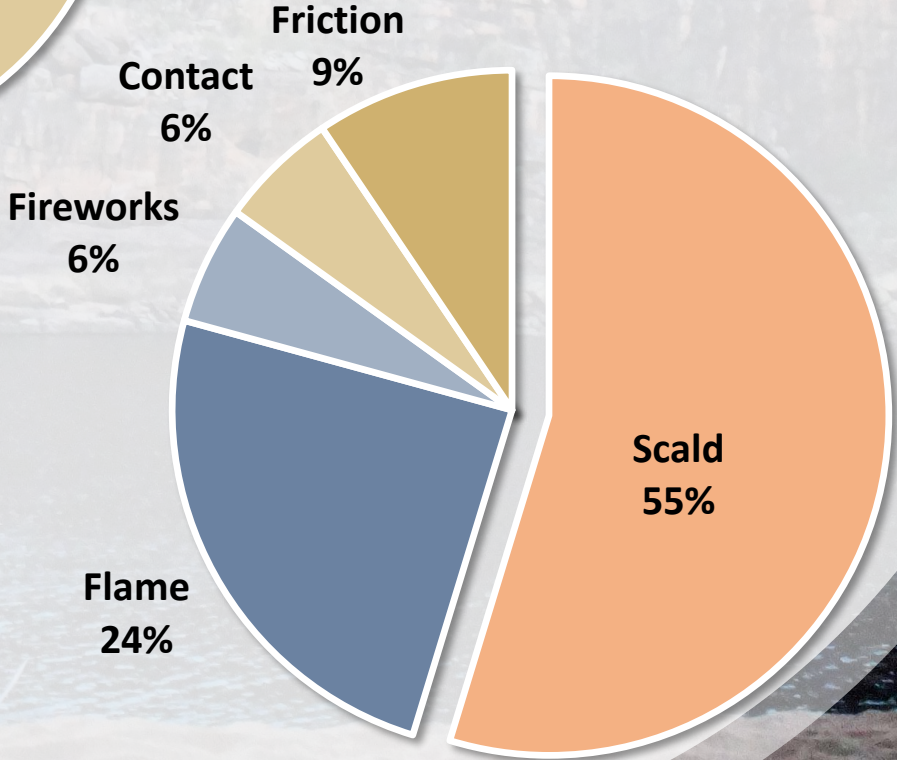
- Domestic Violence: within intimate partner relationship
- Family Violence: blood or adoptive relatives, outside of intimate partner relationship
- Community Violence: outside of family or intimate partner relationship



Injury Characteristics



Superficial dermal	4.7%
Mid dermal	30%
Deep dermal	47%
Full thickness	19%



Impact on RDH

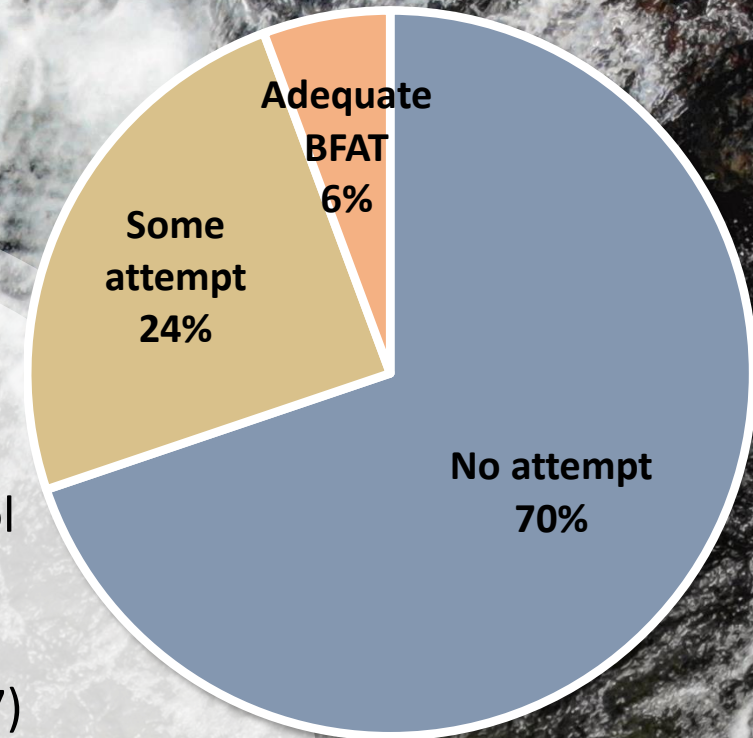
- 53 admissions
- 483 bed days
 - Range 1-26 days
 - Median length of stay 8 days
- 5 Critical Care Unit admissions
- 81% required surgical intervention
 - Range 1-5 theatre visits
- 36 wound excisions
- 14 split thickness skin grafts



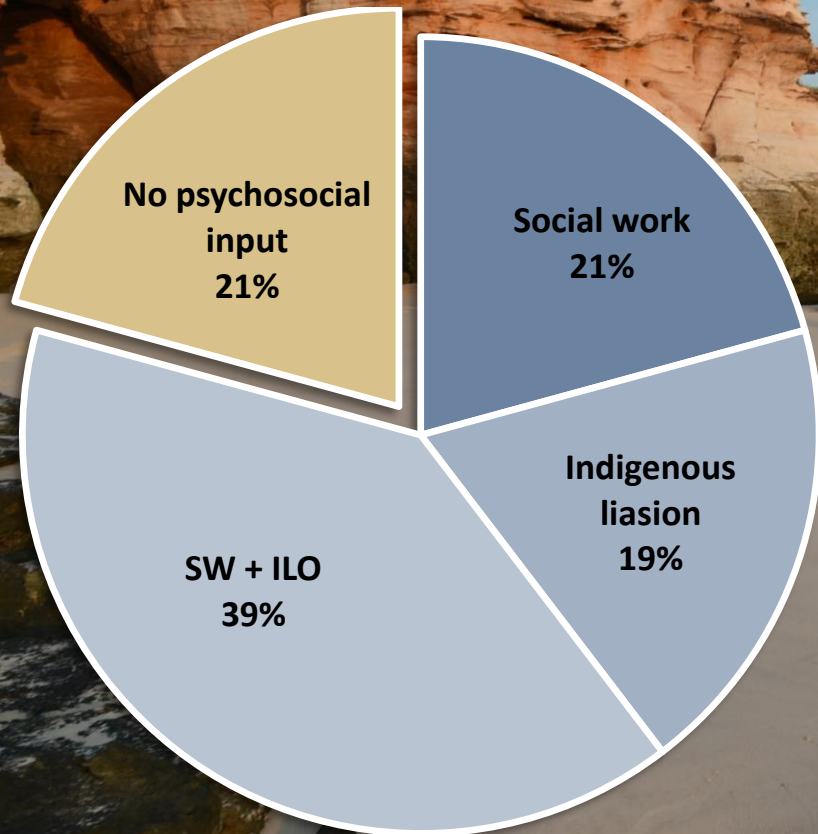
Burn First Aid Treatment



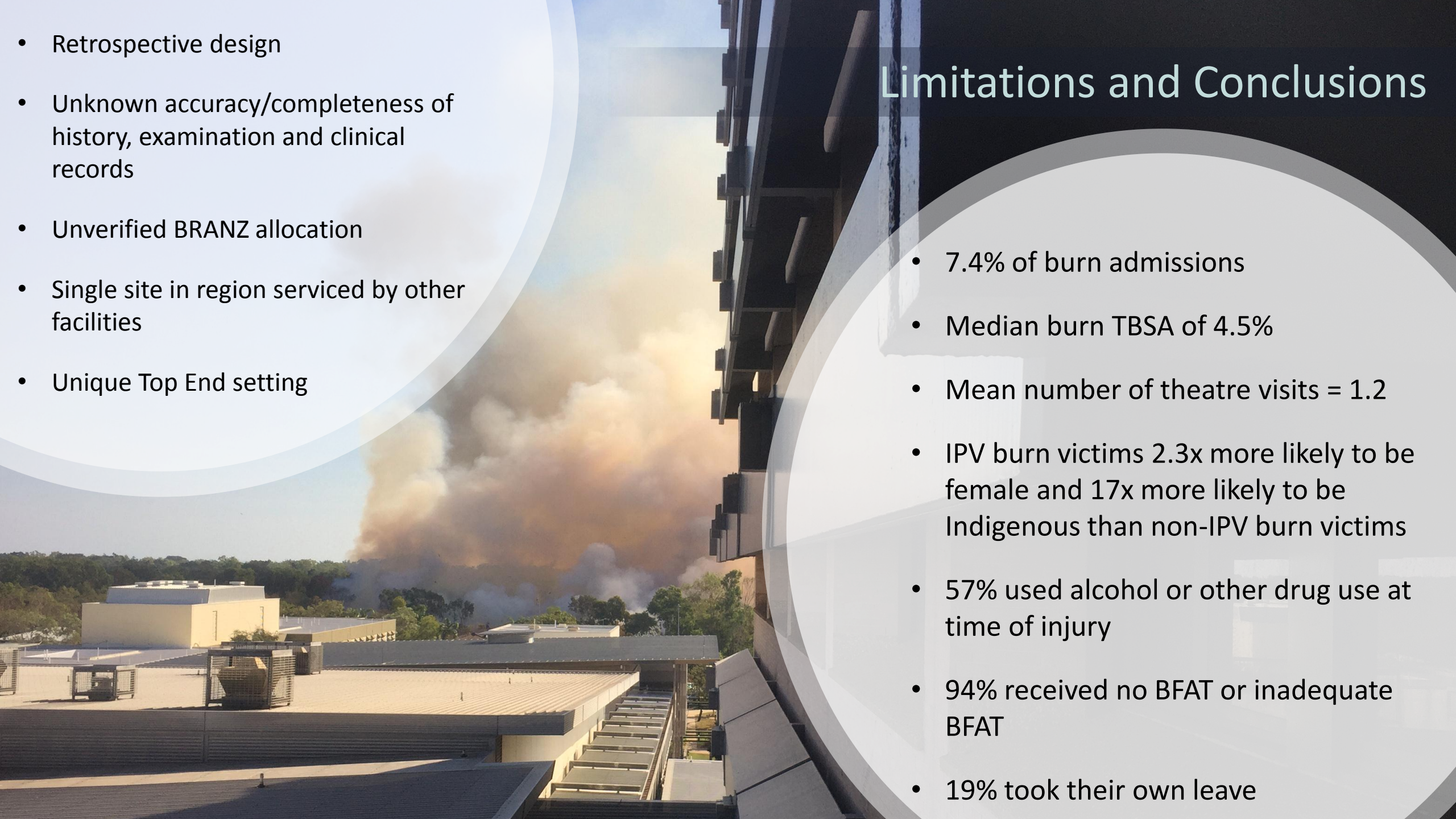
- Adequate BFAT = 20 minutes cool running water
- No attempt at BFAT in 70% (n=37)
 - 3 received adequate first aid
 - 13 received attempted BFAT
- 16 arrived at RDH within 3 hours of burn
 - 3 received adequate first aid prior to presentation
 - Remainder did not undergo further in-hospital BFAT



Psychosocial Support



- 79% received inpatient psychosocial support (ILO or SW)
- 19% (n=10) took own leave
 - Includes 7 who received inpatient ILO or SW consult



- Retrospective design
- Unknown accuracy/completeness of history, examination and clinical records
- Unverified BRANZ allocation
- Single site in region serviced by other facilities
- Unique Top End setting

Limitations and Conclusions

- 7.4% of burn admissions
- Median burn TBSA of 4.5%
- Mean number of theatre visits = 1.2
- IPV burn victims 2.3x more likely to be female and 17x more likely to be Indigenous than non-IPV burn victims
- 57% used alcohol or other drug use at time of injury
- 94% received no BFAT or inadequate BFAT
- 19% took their own leave

References

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Thank you!

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